

# Work Order ID 82611

**\*82611\***

Page 1

April-03-12 11:30:05 AM

Item ID: D3589-3

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: ARM GUIDE

Start Date: 03/04/2012 Start Qty: 18.00 **\*18\***

Cust Item ID:

Required Date: 17/04/2012 Req'd Qty: 18.00 **\*18\***

Customer:

Reference:

Approvals: Process Plan: MLJ Date: 12/04/03 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3589	Rev B

100 0.00

**\*100\***

Hardinge

Hardinge CNC Lathe Small

Memo

1-TURN AS PER FOLIO FA754 & DWG D3589

FOLIO REV: \_\_\_\_\_

DWG REV: \_\_\_\_\_

2-DEBURR AS REQUIRED

Manual

110 QC2- Inspect parts off machine FAI/FAIB 0.00

**\*110\***

QC

Quality Control

Memo

0.00

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 82611**

April-03-12 11:30:05 AM

**\*82611\***

Page 2

Item ID: D3589-3

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: ARM GUIDE

Start Date: 03/04/2012 Start Qty: 18:00

**\*18\***

Cust Item ID:

Required Date: 17/04/2012 Req'd Qty: 18:00

**\*18\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120 QC8- Inspect parts - second check

0.00

**\*120\***

RF 12-4-9

12

4

QC

Memo

0.00

Quality Control

130 Identify as per dwg &amp; Stock Location

0.00

**\*130\***

STWAT

Packaging

Memo

0.00

Packaging

(12x) SP 12-04-10

140 QC21- Final Inspection - Work Order Release

0.00

**\*140\***

12/4/10

QC

Memo

0.00

Quality Control

12-04-10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

April-03-12 11:30:08 AM

Page 1

Work Order ID: 82611

\*82611\*

Parent Item: D3589-3

\*D3589-3\*

Parent Item Name: ARM GUIDE

Start Date: 03/04/2012

Required Date: 17/04/2012

Start Qty: 18.00

Required Qty: 18.00

Comments: IPP Rev:A 08-05-29 new issue DD verified by:EC iPP Rev:B  
09-02-20 rev.b asper dwg DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304R.500		Purchased	No			100	f	38.7000	0.05	0.947368			

\*M304R 500\*

\*\*

304 SS roundbar .500

Location

Loc Qty

Loc Code

MAT029

38.7

115334

16.56

117890

22.14

1.2 ~~10~~ 12-04-09

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

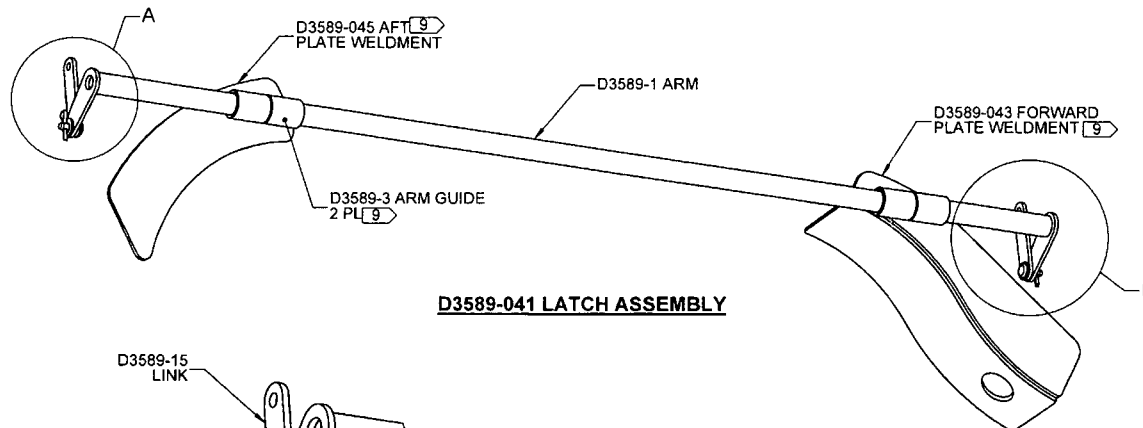
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

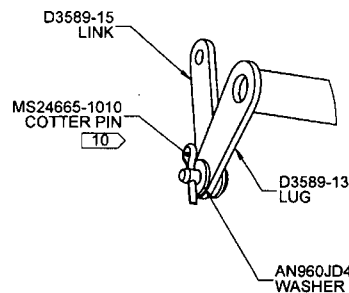
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

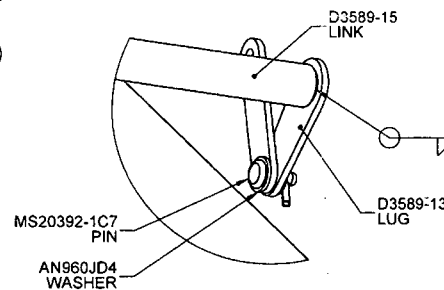
QTY.	P/N	DESCRIPTION
X	D3589-041	LATCH ASSEMBLY
1	D3589-045	AFT PLATE WELDMENT
1	D3589-043	FORWARD PLATE WELDMENT
1	D3589-1	ARM
2	D3589-3	ARM GUIDE
2	D3589-13	LUG
2	D3589-15	LINK
4	AN960JD4	WASHER
2	MS20392-1C7	PIN
2	MS24665-1010	COTTER PIN



**D3589-041 LATCH ASSEMBLY**



**DETAIL A: LINK ASSEMBLY DETAIL**  
SCALE 2X  
2 PL



**DETAIL B: WELDING AND  
LINK ASSEMBLY DETAIL**  
SCALE 2X  
2 PL

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 82611 MCT  
12/04/03

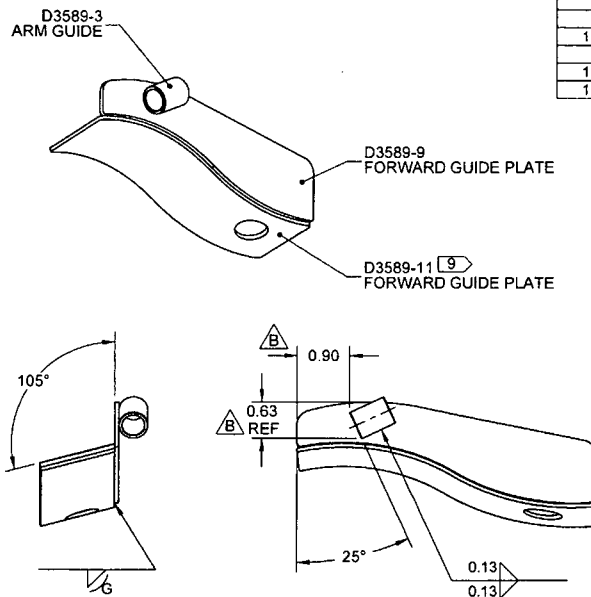
**RELEASED**  
9/6/05 MCT

**D3589-041 NOTES:**

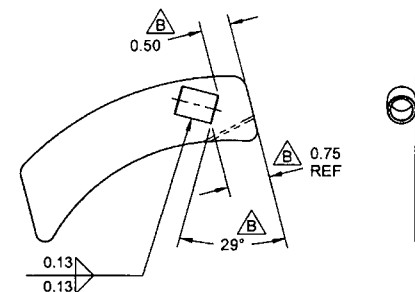
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3589-041" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.73 lbs
- 8) WELDING: PER DART QSI 004 USING DT9033
- 9) IDENTIFIED PARTS ARE LOOSE ON D3589-1 ARM
- 10) INSTALL COTTER PIN IN ACCORDANCE WITH MS33540

B	0.90 AND 0.63 REF WERE 1.97 AND 0.60 (ZN C8-2); 0.50 WAS 1.89 (ZN C3-2); 0.75 REF REPLACES 2.01 (ZN C2-2); 28" WAS 15" (ZN B2-2); 19.00 WAS 18.88 (ZN D4-4); REDESIGNED D3589-9 (ZN A6-6) AND D3589-11F (ZN C2-3) REASON: REDESIGN FOR PROPER FIT AND TO MATCH TESTED CONFIGURATION	MB	08.06.25
A	NEW ISSUE	MB	08.05.29
REV.	DESCRIPTION	BY	DATE
DESIGN	JH	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA DRAWING NO. <b>D3589</b> REV. B SHEET 1 OF 8 TITLE <b>LATCH ASSEMBLY</b> SCALE NTS COPYRIGHT © 2008 BY DART AEROSPACE LTD. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DRAWN	JB		
CHECKED	PH		
MFG. APPR.	KS		
APPROVED	JP		
DE APPR.	JH	DATE <b>08.06.25</b>	

QTY -043	QTY -045	P/N	DESCRIPTION
X		D3589-043	FORWARD PLATE WELDMENT
	X	D3589-045	AFT PLATE WELDMENT
1	1	D3589-3	ARM GUIDE
	1	D3589-7	AFT GUIDE PLATE
1		D3589-9	FORWARD GUIDE PLATE
1		D3589-11	FORWARD GUIDE PLATE



**D3589-043 FORWARD PLATE WELDMENT**



**D3589-045 AFT PLATE WELDMENT**

**D3589-043/-045 NOTES:**

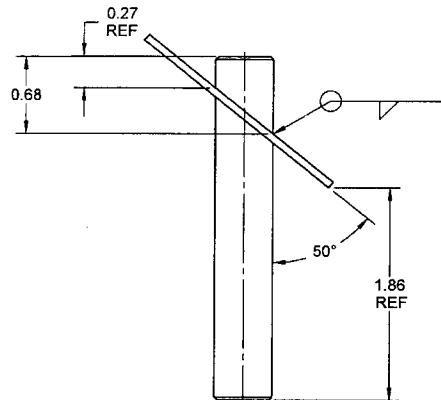
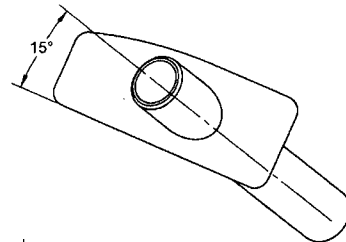
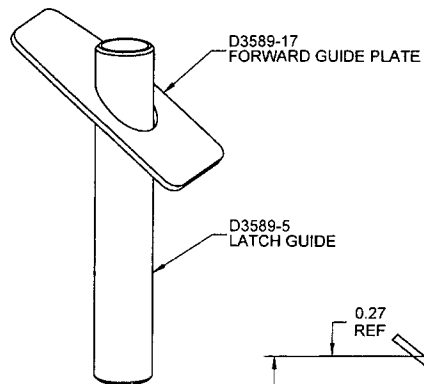
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3589-0XX" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT:
  - D3589-043 = 0.22 lbs
  - D3589-045 = 0.10 lbs
- 8) WELDING: PER DART QSI 004 USING DT9033
- 9) FORM D3589-11 TO FIT D3589-9 MATING EDGE

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3589	SHEET 2 OF 8
APPROVED		TITLE	SCALE
DE APPR.		LATCH ASSEMBLY	NTS
DATE	08.06.25	<small>COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

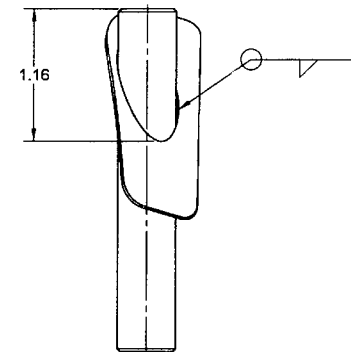
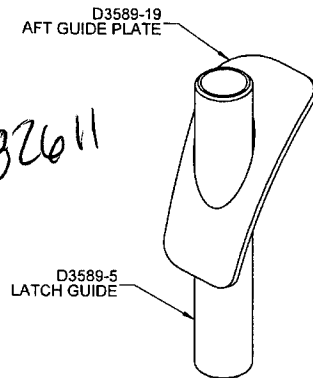
**RELEASED**  
09/03/25 N/A



QTY -047	QTY -049	P/N	DESCRIPTION
X		D3589-047	FORWARD GUIDE
	X	D3589-049	AFT GUIDE
1	1	D3589-5	LATCH GUIDE
1		D3589-17	FORWARD GUIDE PLATE
	1	D3589-19	AFT GUIDE PLATE



**D3589-047 FORWARD GUIDE**



**D3589-049 AFT GUIDE**

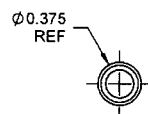
**D3589-047/-049 NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3589-0XX" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.07 lbs EACH
- 8) WELDING: PER DART QSI 004

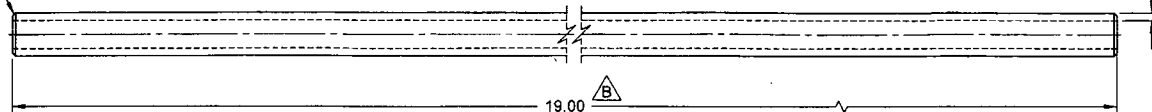
DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3589	SHEET 3 OF 8
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DE APPR.		LATCH ASSEMBLY	NTS
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**RELEASED**  
09/06/09

82611

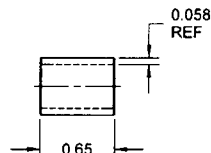
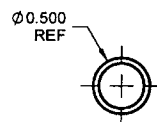


0.03 X 45°  
CHAMFER  
2 PL

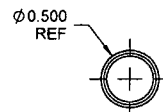


0.065  
REF

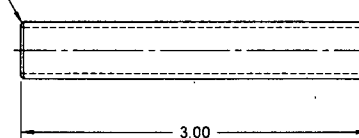
**D3589-1 ARM**



**D3589-3 ARM GUIDE**



0.03 X 45°  
CHAMFER  
2 PL



0.049  
REF

**D3589-5 LATCH GUIDE**

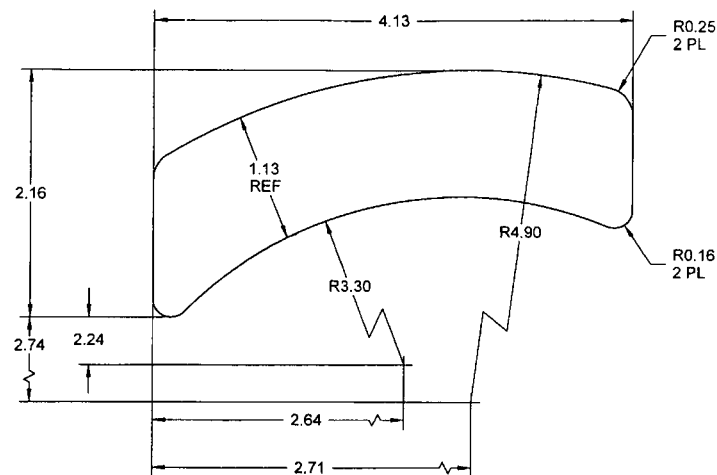
**RELEASED**  
9/22/05

**D3589-1/-3/-5 NOTES:**

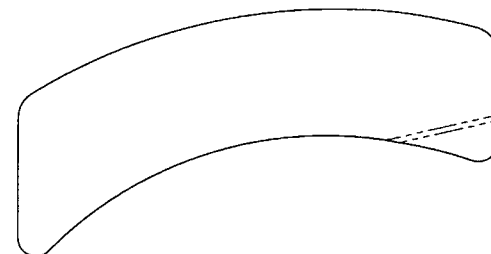
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SEAMLESS ROUND TUBING  
 D3589-1: 0.375 O.D. X 0.065 WALL (REF. DART SPEC M304TR0.375W.065)  
 D3589-3: 0.500 O.D. X 0.058 WALL (REF. DART SPEC M304TR0.500W.058)  
 D3589-5: 0.500 O.D. X 0.049 WALL (REF. DART SPEC M304TR0.500W.049)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: - D3589-1 = 0.34 lbs  
 - D3589-3 = 0.01 lbs  
 - D3589-5 = 0.06 lbs

DESIGN	<i>[Signature]</i>	<b>DART AEROSPACE LTD</b>	
DRAWN	<i>[Signature]</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D3589	SHEET 4 OF 8
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	LATCH ASSEMBLY	NTS
DATE	08.06.25	COPYRIGHT © 2008 BY DART AEROSPACE LTD	
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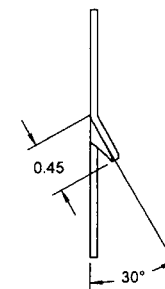
82611



**D3589-7F AFT GUIDE PLATE  
FLAT PATTERN**



**D3589-7 AFT GUIDE PLATE  
MAKE FROM D3589-7F**

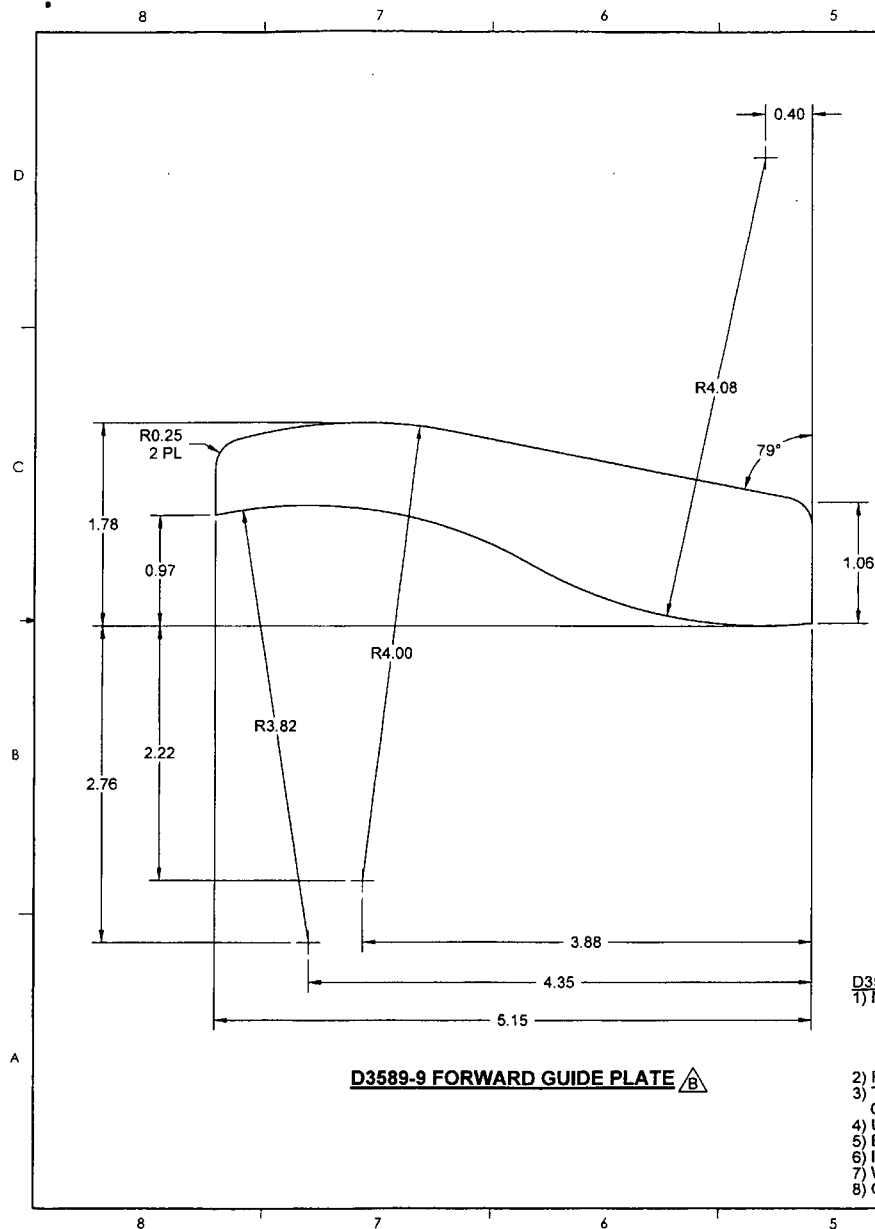


**RELEASED**  
09/26/05 MB

**D3589-7F NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, PER AMS 5513 OR AMS 5524, OR MIL-S-5059 (ANNEALED) 2B FINISH  
16 GAUGE (0.063 THICK), (REF. DART SPEC M304S16GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.09 lbs

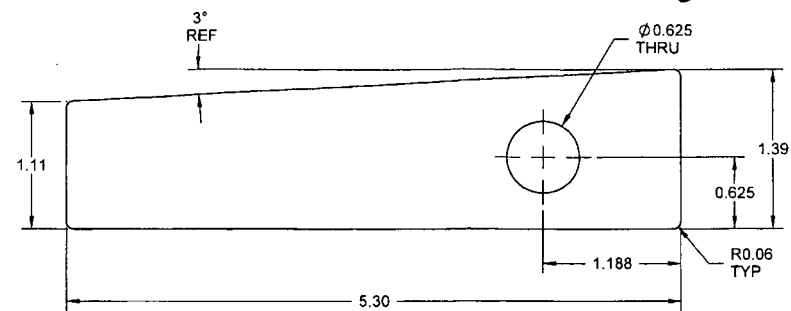
DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3589	SHEET 5 OF 8
APPROVED		TITLE	SCALE
DE APPR.		LATCH ASSEMBLY	NTS
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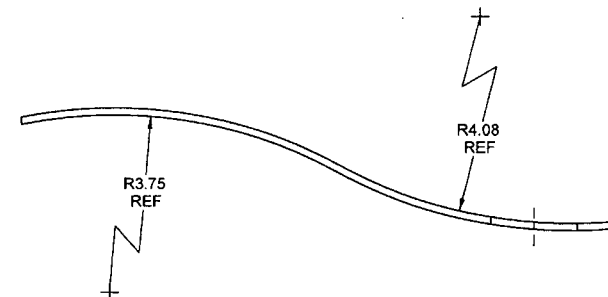
**D3589-9 FORWARD GUIDE PLATE**

**D3589-9/-11/-11F NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, PER AMS 5513 OR AMS 5524, OR MIL-S-5059 (ANNEALED) 2B FINISH 16 GAUGE (0.063 THICK), (REF. DART SPEC M304S16GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.09 LBS EACH
- 8) CONTROL SHAPE PER DT9021 TEMPLATE









**D3589-11F FORWARD GUIDE PLATE**   
**FLAT PATTERN**

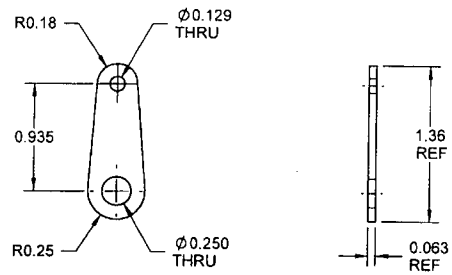


**D3589-11 FORWARD GUIDE PLATE**  
(MAKE FROM D3589-11F)

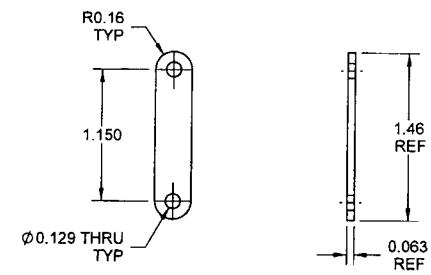
**RELEASED**  
09/12/2014

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		<b>D3589</b>	SHEET 6 OF 8
APPROVED		TITLE	SCALE
DE APPR.		<b>FORWARD GUIDE PLATE</b>	NTS
DATE	08.06.25	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

82611



**D3589-13 LUG**



**D3589-15 LINK**

**RELEASED**  
08/02/05

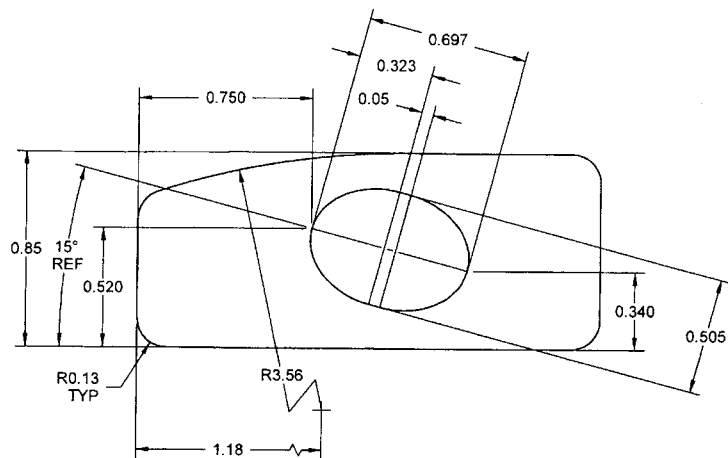
**D3589-13/-15 NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, PER AMS 5513 OR AMS 5524, OR MIL-S-5059 (ANNEALED) 2B FINISH  
16 GAUGE (0.063 THICK), (REF. DART SPEC M304S16GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.01 lbs EACH

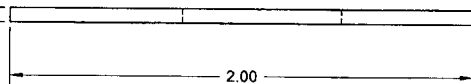
DESIGN	JH	<b>DART AEROSPACE LTD</b>	
DRAWN	JH	HAWKESBURY, ONTARIO, CANADA	
CHECKED	PH	DRAWING NO.	REV. B
MFG. APPR.	DS	D3589	SHEET 7 OF 8
APPROVED	NO	TITLE	SCALE
DE APPR.	JH	LATCH ASSEMBLY	NTS
DATE	08.06.25	<small>COPYRIGHT © 2005 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

8 7 6 5 4 3 2 1

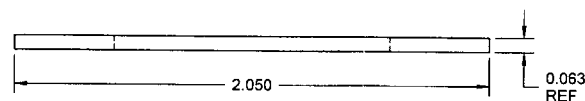
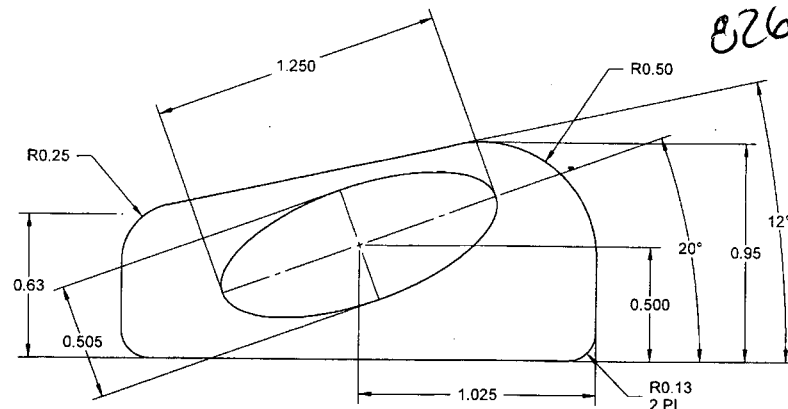
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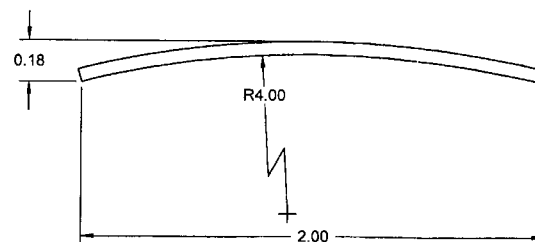
0.063  
REF



**D3589-17 FORWARD GUIDE PLATE**



**D3589-19F AFT GUIDE PLATE FLAT PATTERN**



**D3589-19 AFT GUIDE PLATE**  
(MAKE FROM D3589-19F)

**RELEASED**  
09/02/05/11

**D3589-17/-19/-19F NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, PER AMS 5513 OR AMS 5524, OR MIL-S-5059 (ANNEALED) 2B FINISH  
16 GAUGE (0.063 THICK), (REF. DART SPEC M304S16GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.02 lbs EACH

DESIGN		<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN		DRAWING NO.	REV. B
CHECKED		D3589	SHEET 8 OF 8
MFG. APPR.		TITLE	SCALE
APPROVED		LATCH ASSEMBLY	NTS
DE APPR.		COPYRIGHT © 2008 BY DART AEROSPACE LTD	
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